16/24/32 Port 10/100Mbps Fast Ethernet Switch

16/24/32 Port 10/100Mbps Fast Ethernet Switch

ES-3116RL
ES-3124RL
ES-3132RL

User's Manual

EDIMAX

FCC COMPLIANCE STATEMENT

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the instructions provided with the equipment, may cause interference to radio and TV reception. The equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference in a commercial environment. However, there is no guarantee that interference will not occur in a particular installation.

If you suspect this equipment is causing interference, turn your switch on and off while your radio or TV is showing interference to determine the source of the interference.

You can try to correct the interference by one or more of the following measures:

1. Reorient the receiving radio or TV antenna where this may be done safely.
2. To the extent possible, relocate the radio, TV or the other receiver away from the equipment.
3. Plug the computer which has the equipment installed into a different power outlet so that equipment and the receiver are on different branch circuits.

If necessary, you should consult the place of purchase or an experienced radio/ television technician for additional suggestion.

CAUTION : The phone jack cannot be connected to telephone system.

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Congratulations on your purchase of this Fast Ethernet Switch. This high performance switch provides Fast Ethernet ports to segment network traffics, extend Fast Ethernet connection distance, and convert data packets between different transmission speeds.

This switch utilize stored-and-forward switching architecture that filters and forwards data after the complete data packet is received and examined to be free of errors. With one set of status LEDs for each individual port, the switch operation status can be easily monitored.

It's rackmount design that can be mounted on the industrial standard 19 inches rack in the enterprise wiring center.

All of UTP ports support full & half duplex which are able to provide 200Mbps of bandwidth, The auto-negotiation function providing smooth migration from Ethernet to Fast Ethernet. It also supports backpressure and IEEE 802.3x advanced flow control capability that can reduce congestion and prevent packet loss. Importantly it provide Auto-MDI/MDI-X function on all UTP port, so you don't need to worry about whether the cable is normal or cross over type.

And it offers the best way to relieve bandwidth bottlenecks and provide faster response times for networked users.

This switch is typically used to segment network traffics that can improve the network performance by increasing the total bandwidth as illustrated in Figure 1-1.

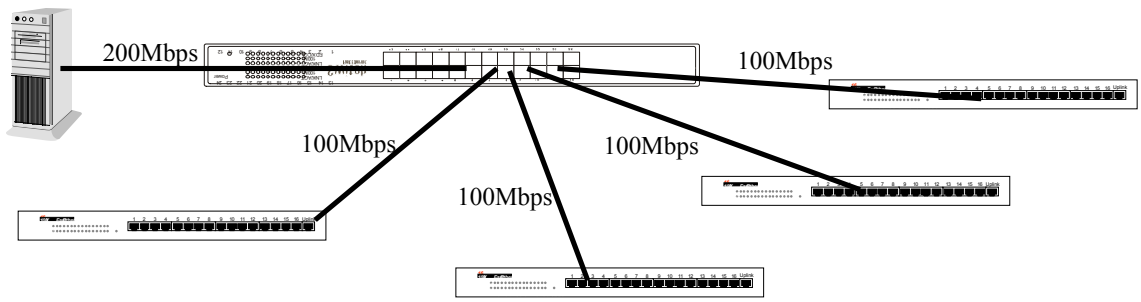


Figure 1-1 Increase network bandwidth

(1) Features

- Comply with IEEE 802.3 10BaseT Ethernet and 802.3u 100BaseTX Fast Ethernet standards.
- Simple and economical way to bridge 10BaseT network and 100BaseTX network.
- IEEE 802.3x compliant flow control for full duplex and Backpressure for half duplex.
- All of RJ-45 ports support 10BaseT/100BaseTX and Full-Duplex /Half-Duplex Auto-negotiation function.
- All of RJ-45 ports provide Auto-MDI/MDI-X function.
- Extensive front-panel diagnostic LEDs
- Support store-and-forward switching architecture.
- 19” rackmount designed

■ Standards : IEEE 802.3 10BaseT and 802.3u 100BaseTX

■ 10/100Mbps UTP Ports :

ES-3116RL - RJ-45 x 16 with Auto-MDI/MDI-X

ES-3124RL - RJ-45 x 24 with Auto-MDI/MDI-X

ES-3132RL - RJ-45 x 32 with Auto-MDI/MDI-X

■ Switching Architecture : Store and Forward

■ Filter/Forward Rate : 148,800 packets/sec.

■MAC Address :

ES-3116RL - 8K

ES-3124RL - 4K

ES-3132RL - 4K

■ Buffer Memory :

ES-3116RL - 512KByte

ES-3124RL – 768KByte

ES-3132RL – 1MByte

■ Nway Auto-negotiation : all ports

■ Full-Duplex/Half-Duplex : all ports

■ Switch LED : Power

■ Port LEDs :

Link/Activity

Collision/Full Duplex

10/100M

■ Dimensions : 440 x 172 x 45 mm / 17.3 x 6.8 x 1.75 inches

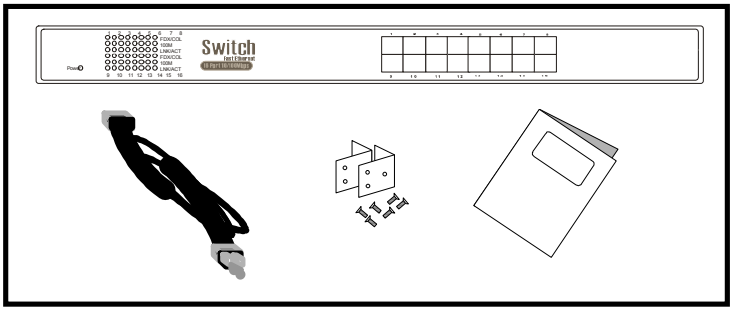
■ Weight : 2.4kg / 5.3 lb

■ Power : 100~240V AC, full range internal power supply

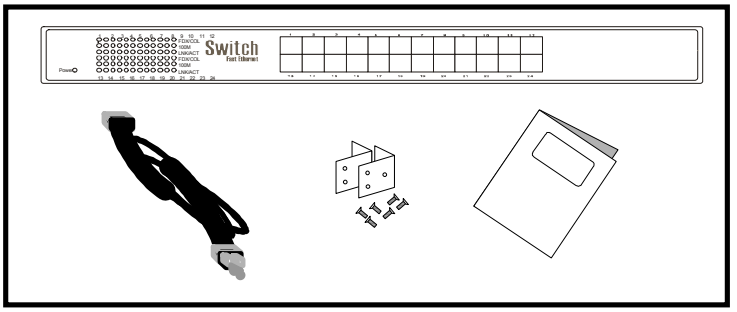
■ Operating Temperature : 32-131^{0}F / 0-55^{0}C

- One Fast Ethernet Switch
- One power cord
- One user's manual
- Rackmount accessories

S-3116RL



S-3124RL



S-3132RL

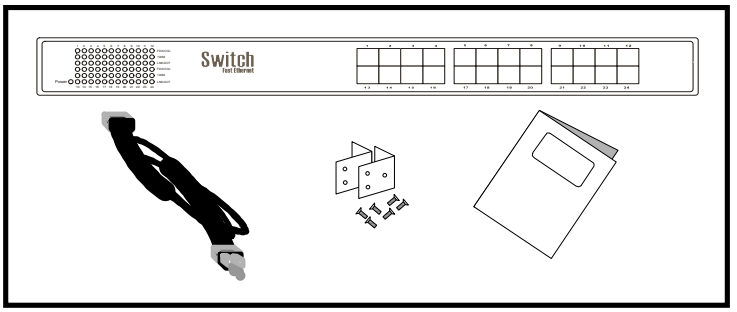
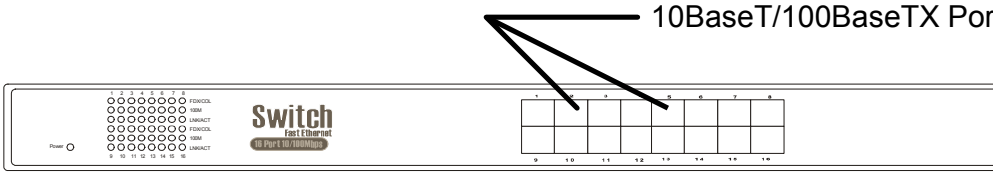


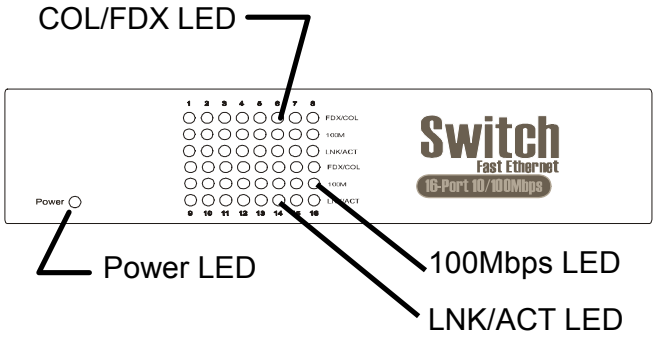
Figure 2-1 Package contents

(1) Panel

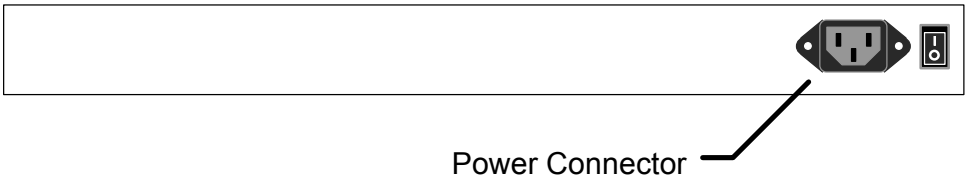
Front View



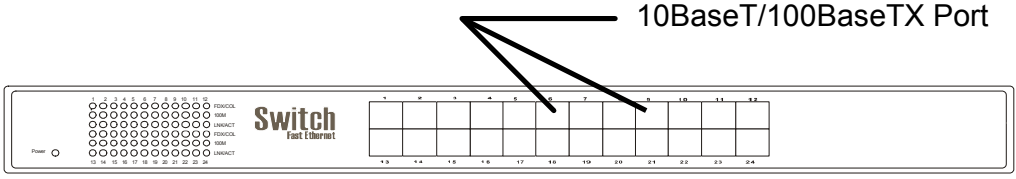
-3116RL



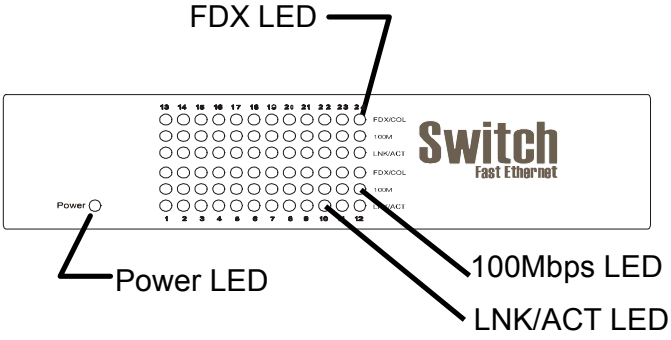
Rear View



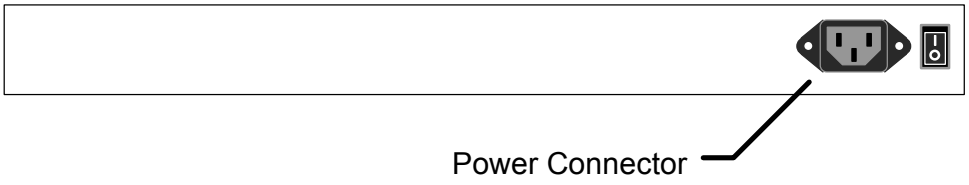
Front View



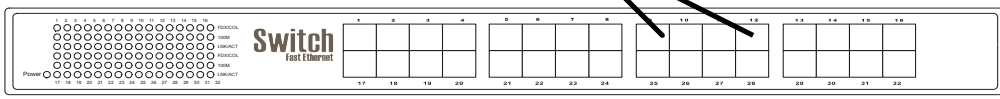
-3124RL



Rear View



Front View



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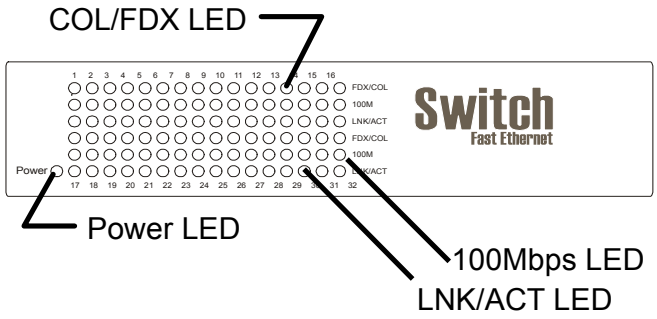
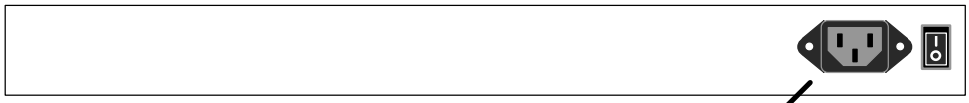


Rear View



LED	Status	Description
PWR (Power)	Lit	Power is supplied
	Off	No power
LNK/ACT (Link/Activity)	Lit	A valid link is established
	Flash	Data packets received
	Off	No link is established
10/100M	Lit	This port run at 100Mbps
	Off	Not connected or run at 10Mbps
COL/FDX (Collision/Full Duplex)	Lit	This port run at Full Duplex
	Flash	Collision detected in this segment
	Off	No collision

Table 4-1 LED description

1. Operating Environment

This switch must be installed and operated within the limits of specified operating temperature and humidity (see previous section under Specifications). Do not place objects on top of the unit. Do not obstruct any vents at the sides of the unit. Do not position the unit near any heating source such as heater, radiator, or direct exposure to sun. Prevent entering of water and moisture into the unit. If necessary, use dehumidifier to reduce humidity.

2. Connecting to network devices

The RJ-45 ports on the switch are designed as Auto-MDI/MDI-X ports whether the cable is straight-through or cross over type, this switch could connect with workstation or other switch/hub easily.

Connect one end of the network cable to the RJ-45 port on the front panel, and connect the other end of the network cable to the RJ-45 port on the network device. Following the same procedure to connect all the RJ-45 ports of the switch. The UTP network cables must comply with EIA/TIA 568 specifications and Category 5 standard for 100Mbps data transmission. Maximum length, using UTP cable, between the switch and connected device is 100 meters (300ft).

3. Connecting the power

Connect the power cord to the power socket on the rear panel of the unit. Connect the power cord to the power outlet and turn on power switch. The green Power LED on the front panel should be lit.

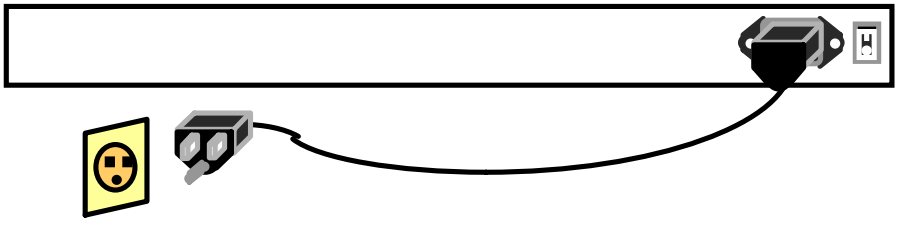


Figure 5-5 Connect the power cable

1. Power LED is not lit

• Check if the power cord is properly connected to the power outlet and the hub. Make sure the power switch on the hub is turned ON.

2. 100M UTP Link is not lit when connect to 100Mbps device

• Check the power switch of the network device attached to the switch; make sure it is turned ON.

• Check the network cable; make sure it is properly connected to the switch and the network device.

3. UTP Collision LED flashes constantly

• Remove all the network cables, then plug in the cables to isolate the source of the collision.

• Check the network cable, inferior cable quality will result in excessive collision and error packets.

[!] Contact your dealer if problem persist.